

REMARKS

Applicants have amended claims 1, 27, and 41 in order to expedite prosecution in this matter. Please cancel claims 3-5, 8, 11-40, 49-80.

Amendments to the claims are supported throughout the specification and in the claims as originally filed. In particular, recitation of "...detecting MMP-9/NGAL complex..." in amended claim 1 is supported starting at page 3 lines 23-24 and ending at page 4 lines 1-2, in original claims 13-15, and throughout the specification, particularly in the Examples starting at page 23. Amendment of claim 1 to recite the biological sample as being "urine" is supported at claims 40 and 75 as originally filed. As such, these amendments do not constitute new matter and their entry is respectfully requested.

With respect to the provisional obviousness-type double patenting rejection, a terminal disclaimer is filed herewith.

Claims 1, 2, 6, 7, 9-28, 40-48, and 77-80 were rejected under 35 U.S.C. §112, second paragraph. The terms "high molecular weight" and "low molecular weight" have been cited as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The Applicants have amended claims to recite "...detecting an MMP-9/NGAL complex.." As such, the rejection is moot.

Claims 1, 2, 6, 7, 10-28, 32,33, 36-48 and 77-80 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Applicants have amended that claims to recite "... detecting MMP-9/NGAL complex." which is fully supported throughout the specification. As such, the Applicants respectfully request that the rejection under 35 U.S.C. §112, first paragraph be withdrawn.

Claims 1, 2, 4-7, 10-26, 40-48, 77-80 were rejected under 35 U.S.C. §102(b) as being anticipated by Moses et al (cancer Research, 1998, Vol. 58, pp. 1395-1399) as evidenced by Yan et al (Journal of Biological Chemistry, 2001, vol. 276, Vol. 40, pp 37258-37266).

Applicants respectfully submit that this rejection should be withdrawn for the following reasons.

In order to properly reject a claim as anticipated, a single reference that is prior art under Section 102 must be relied upon. This is not the case here. The Examiner is relying on Yan et al. as providing evidence that the 125 kDa complex disclosed by Moses et al. comprised MMP9 and NGAL. It appears that the Examiner is focusing the rejection as if the Applicants were claiming the 125 kDa species as a composition and thus Moses et al. would inherently disclose the MMP9/NGAL composition. However, Applicants are not claiming a composition comprising a 125 kDa species. Rather, Applicants are claiming a method comprising detection of the MMP9/NGAL complex for diagnosis of a tissue remodeling-associated condition. Thus, Moses et al. does not inherently anticipate the claimed method.

Applicants submit that there is no teaching in Moses et al. that the 125 kDa species is a complex. Further, there is no teaching or suggestion that the 125 kDa species comprises MMP9 or NGAL. In fact the reference states:

“The identities of the hMW class of the M_r 125,000 MMP species detected only in the urine from breast cancer patients, and other minor species detected infrequently are unknown.” (beginning at page 1397, column 2, line 47 and ending at page 1398, column 1, line 2)

As such, one skilled in the art would not know that the 125 kDa species was a complex comprising MMP9 and NGAL. Accordingly, one skilled in the art would not know by reading Moses et al. that a tissue remodeling-associated condition, such as breast cancer, could be diagnosed by detecting an MMP9/NGAL complex.

Accordingly, Applicants respectfully submit that this rejection of the claims should be withdrawn.

Claims 1, 2, 4-7, 10-26, 40-48, 77-80 were rejected under 35 U.S.C. §102(b) as being anticipated by the abstract of Black et al (Clinical cancer Research, Feb 2000, vol 6, pp 467-473)

Black et al. discuss detection of a complex comprising PSA and/or serine protease inhibitor alpha 1-antichymotrypsin in the serum of women having breast cancer. Black et al.

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does not teach or suggest detection of a complex comprising a matrix metalloproteinase. As such, the Applicants respectfully request that the rejection be withdrawn.

Claims 1, 2, 6, 7, 9, 11-13, 17-20, 25, 26, 46, 48, and 77-80 were rejected under 35 U.S.C §102(b) as being anticipated by Zuker (WO 93/20447) as evidenced by Kolkenbrock et al (Biological Chemistry, 1996, vol. 377, pp. 529-533).

Applicants respectfully submit neither reference describes MMP-9/NGAL complex. As such, a combination of the references does not teach each and every element of the claims. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claims 27, 28, 32,33, 35-37, and 46 were rejected under 35 U.S.C. §103(a) as being unpatenable over Hung (US 6,610,484) in view of Stoetsz et al. (International Journal of Cancer, 1998, vol. 79, pp. 565-572).

Applicants respectfully submit that this rejection should be withdrawn for the following reason.

The combination of the references of Hung and Stoetsz et al. does not teach each and every element of the claimed invention. There is no teaching or suggestion in either reference that MMP9/NGAL complex can be detected in urine and used to facilitate diagnosis of a tissue remodeling associated condition, such as cancer. As such, the Applicants respectfully request that the rejection be withdrawn.

Claims 1, 2, 6, 7, 9, 11-13, 17-20, 25, 26, 46-48 and 77-80 were rejected under 35 U.S.C. §103(a) as being unpatentable over Zuker (WO 93/20447) as evidenced by Kolkenbrock et al (Biological Chemistry, 1996, vol. 377, pp. 529-533) in view of Kerr and Thorpe (Immunochemistry LabFax, 1994, pp. 1152).

Applicants submit that neither Zuker, Kerr and Thorpe, or Kolkenbrock et al. describe MMP-9/NGAL complex. Accordingly, a combination of these references does not teach each and every element of the invention. As such, applicants respectfully submit that the rejection should be withdrawn.

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Claims 1, 2, 6, 7, 9, 11-13, 17-20, 25, 26, 43-46 and 77-80 were rejected under 35 U.S.C. §103(a) as being unpatentable over Zuker (WO 93/20447) as evidenced by Kolkenbrock et al (Biological Chemistry, 1996, vol. 377, pp. 529-533) and Moses et al (Cancer research, 1998, Vol. 58, pp. 1395-1399).

Applicants submit that neither Zuker, Kolkenbrock et al., or Moses et al. describe MMP-9/NGAL complex. Accordingly, a combination of these references does not teach each and every element of the invention. As such, applicants respectfully submit that the rejection should be withdrawn.

In view of the following, Applicants respectfully submit that all claims are in condition for allowance. Even if the Examiner disagrees, Applicants respectfully submit that the amendments to the claims, which merely incorporate recitations of claims already being examined, reduces the issues for appeal and thus this amendment should be entered. Early and favorable action is requested.

Respectfully submitted,

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